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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,261	10/31/2003	George E. Mueller	59967-44	2944
22504	7590	06/15/2006		
DAVIS WRIGHT TREMAINE, LLP 2600 CENTURY SQUARE 1501 FOURTH AVENUE SEATTLE, WA 98101-1688			EXAMINER DINH, TIEN QUANG	
			ART UNIT 3644	PAPER NUMBER

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/698,261	<b>Applicant(s)</b> MUELLER ET AL.	
	<b>Examiner</b> Tien Dinh	<b>Art Unit</b> 3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-70 is/are pending in the application.
- 4a) Of the above claim(s) 37-70 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27-36 is/are allowed.
- 6) ☒ Claim(s) 1-14 and 22-26 is/are rejected.
- 7) ☒ Claim(s) 15-21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 8, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Dotts et al.

Dotts et al teaches a system having a reusable orbital vehicle, a plurality of attachment positions, and experimental packages (the tiles) that are placed throughout the space shuttle. The outer skin surface is formed by a thermal protection system. Please note that a thermal protection system is a system that protects something that is interiorly from heat. Hence, the outer skin surface is a surface formed by a thermal protection system (which is the material used to make the outer skin surface).

In addition, it can be interpreted that Dotts et al teaches that the thermal protection system is interpreted as 16 that form the outer surface portion. Please also note that other parts such as the tile or other elements shown in figures 1-3 can be the thermal protection system.

Claims 1-4, 8, and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Cervisi et al.

Cervisi et al discloses a reentry vehicle having a skirt, experiment packages 110 (see figures 2, 4, and 6), and attachment positions.

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Re claim 13, please note that any parts on the interior portion of the aft skirt can be broadly read as a protected attachment position. Please see the inside of today's interior portion of the aft skirt. Re claim 14, a screw or attachment members in the interior portion is well known in this day and age.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5-7, 9-11, and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bridges et al in view of Dotts et al.

Bridges disclose a reusable orbital vehicle that has access panels (see figures 4-7) but is silent on the experimental packages. However, Dotts et al teaches that experimental packages and attachment positions are well known in the art.

It would have been obvious to one skilled in the art at the time the invention was made to have used experimental packages and attachment positions if Dotts on Bridges et al's system to protect the spacecraft and to know how the tiles operates in space, during reentry and during launch.

Re claim 7, please note that the carrier plate is 14 in Bridges et al.

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Re claims 22-24, please note that sensors such as vibration sensors or temperature sensors and avionics data buses and data storage units are notoriously well known in this day and age. The examiner takes official notice that these parts are well known.

***Allowable Subject Matter***

Claims 15-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 27-36 are allowed.

***Response to Arguments***

In response to applicant's arguments that Dotts does not teach attachment positions on the outer surface of the thermal tiles, the Examiner would like to point out that the claims do not call for this. The claims call for the attachment positions located on the outer skin surface of the orbital vehicle. Furthermore, Dotts does teach an "experimental package", which in this case is the tile. The tile attached to the shuttle can be used as an experiment since it can be examined once it lands. The use of the tiles as experimental packages is intended use. In response to the applicant's arguments on the Cervisi reference, the tiles are interpreted as experimental packages since they can be examined for data. The use of the tiles as experimental packages is intended use carries no patentable weight.

The prior arts still read upon what has been claimed.

***Conclusion***

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tien Dinh whose telephone number is 571-272-6899. The examiner can normally be reached on 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TD

A handwritten signature in cursive script, appearing to read "Tien Dinh".